

Appln No. 10/809,256  
Amdt date November 7, 2005  
Reply to Office action of July 5, 2005

**Amendments to the Drawings:**

The attached sheet of drawings includes changes to FIGs. 1 and 3, as well as new FIGs. 5-7. These sheets, which include FIGs. 1-7, replaces the original sheets.

FIG. 1 and 3 have each been amended to add reference numeral 12, showing the compensation system. FIG. 3 has additionally been amended to include reference numerals 28, 36 and 38, showing the frame lower half component, the load measuring devices, and the control system, respectively. FIG. 3 has also been amended to correct the lead line extending from reference numeral 30 to the hydraulic cylinders.

FIGs. 5-7 have been added. Support for FIG. 5 is shown, for example, on page 4, paragraph 17 of the original specification. Support for FIG. 6 is shown, for example, on page 5, paragraph 20 of the original specification. Support for FIG. 7 is shown, for example, on page 6, paragraph 22 of the original specification.

Attachment: Replacement Sheet

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**REMARKS/ARGUMENTS**

Claims 1-14 are pending in this application, of which claims 1, 12 and 14 are independent. Claims 1, 3-5, 7-9 and 11 have been amended. Claims 12-14 have been added. Figures 1 and 3 have been amended. Figures 5-7 have been added. In addition, due to the large number of amendments to the specification, a marked up version and a clean version of changes made to the specification are included herewith.

The amendments to the specification, drawings and claims, as well as the new figures and claims add no new matter and find full support in the application as originally filed. In view of the above amendments and following remarks, Applicant respectfully requests reconsideration and a timely indication of allowance.

**Drawings**

The Examiner has objected to the drawings under 37 CFR 1.83(a), stating that "the drawings must show every feature of the invention specified in the claims," specifically, the flexible riser section, the accumulators, the hook load compensators, the coiled tubing, the wellhead and the system for monitoring the load.

The flexible riser section is shown in FIG. 5, as reference numeral 14. The accumulators are shown in FIG. 6, as reference numeral 32. The hook load compensators have been deleted from the claims. As stated in the original specification on page 5,

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paragraph 20, the hook load compensators (although not shown in FIG. 7) are positioned between the rig block 34 and the coiled tubing injector 20 of FIG. 7. The coiled tubing is shown in FIG. 5, as reference numeral 30. The wellhead is shown in FIG. 5, as reference numeral 16. Accordingly, Applicant respectfully requests that the objection to the drawings under 37 CFR 1.83(a) be withdrawn.

In a separate objection, the Examiner has objected to the drawings under 37 CFR 1.83(a), "because they fail to show the compensation system (12); and flexible riser section (14); coiled tubing injector; hydraulic cylinders; rig crane or blocks; power packs; active control system; accumulators; coiled tubing and quick release connector as described in the specification."

The compensation system is shown in FIGs. 1 and 3, as reference numeral 12. The flexible riser section is shown in FIG. 5, as reference numeral 14. The coiled tubing injector is shown in FIG. 1 as reference numeral 20. The hydraulic cylinders are shown in FIG. 3, as reference numeral 30. The rig crane or blocks are shown in FIG. 7, as reference numeral 34. The power pack is shown in FIG. 6, as reference numeral 40. One embodiment of the active control system is shown in FIG. 3 by the combination of the load measuring devices 36 and the computer or other analog control system 38. The accumulators are shown in FIG. 6 as reference numeral 32. The coiled tubing is shown in FIG. 5 as reference numeral 30. The quick release

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connector is merely an alternative embodiment of the invention and therefore is not shown in the figures. Accordingly, Applicant respectfully requests that this second objection to the drawings under 37 CFR 1.83(a) be withdrawn.

The Examiner has also objected to the drawings under 37 CFR 1.84(p)(5), "because they do not include the following reference sign(s) mention in the description: the compensation system (12); and the flexible riser section (14)."

The compensation system is shown in FIGs. 1 and 3, as reference numeral 12. The flexible riser section is shown in FIG. 5, as reference numeral 14. Accordingly, Applicant respectfully requests that this second objection to the drawings under 37 CFR 1.84(p)(5) be withdrawn.

### **Specification**

The Examiner has objected to the specification, stating that "the submitted abstract fails to include pertinent components of [the] apparatus claimed as the invention." A new Abstract is submitted herewith in accordance with the Examiner's guidelines. Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

### **Claim Objections**

The Examiner has objected to claim 4 for depending from itself. Claim 4 has been amended to depend from claim 1.

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Accordingly, Applicant respectfully requests that the objection to claim 4 be withdrawn.

**Rejections Under 35 U.S.C. § 102(b)**

The Examiner has rejected claims 1-10 under 35 U.S.C. § 102(b) as allegedly being anticipated by Fikes (U.S. Patent No. 6,554,075). Applicant respectfully traverses this rejection. Claim 1 is directed to a system for reducing the effects of heave movements of a wellhead in an offshore drilling device comprising a frame; a coiled tubing stack supported by the frame; and "a heave compensation system for controlling an amount of load transferred from the coiled tubing stack to the wellhead to reduce relative movements between the coiled tubing stack and the wellhead."

Fikes provides lifts 66 that can displace a stack assembly 165 "to accommodate the thermal expansion of the work string and stack assembly 165." (Col. 7, lines 7-28.) The lifts 66 can also raise the stack assembly 165 off of the wellhead to facilitate disassembly of the stack assembly 165 from the wellhead.

However, the lifts 66 of Fikes are merely that, lifts. They are merely capable of lifting the stack assembly 165. Nowhere does Fikes disclose, teach or suggest that the lifts 66 compensative for heave motions of the wellhead. Nor do the lifts control "an amount of load transferred from the coiled tubing stack to the wellhead to reduce relative movements

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between the coiled tubing stack and the wellhead" (emphasis added) as is specified by claim 1. In fact, the lifts 66 serve to create a relative movement between the stack assembly 165 and the wellhead, by either lifting the stack assembly 165 off of the wellhead during disassembly or raising the stack assembly 165 from the wellhead during thermal expansion of the work string and stack assembly 165. (Col. 7, lines 7-28.) Consequently, Fikes does not anticipate claim 1.

Claim 1 also recites "a system for monitoring the load on the wellhead and activating the load compensation system when predetermined load limits are exceeded." Nowhere does Fikes disclose, teach or suggest either "monitoring the load on the wellhead" or "activating the load compensation system when predetermined load limits are exceeded" as is specified by claim 1. For these additional reasons, Fikes does not anticipate claim 1.

Claim 1 is now believed to be in condition for allowance over Fikes. As such, Applicant submits that claims 2-10 are also allowable over Fikes as being dependent from an allowable base claim and for the additional limitations they contain therein. Accordingly, Applicant respectfully requests that the rejection of claims 1-10 over Fikes under 35 U.S.C. § 102(b) be withdrawn.

**Rejections Under 35 U.S.C. § 103(a)**

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The Examiner has rejected claim 11 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fikes in view of Wetch (U.S. Patent No. 6,688,814). Applicant respectfully traverses this rejection. Claim 11 has been amended to recite that "the flexible riser section comprises a flexible pipe that is connected to the wellhead above the sea level." The riser 31 of Fikes the wellhead 33 at the sub sea level. As such Fikes, does do disclose, teach or suggest a flexible riser section "that is connected to the wellhead above the sea level," as specified by claim 11. Wetch does not make up for this deficiency in Fikes. Consequently, Fikes and Wetch do not render claim 11 obvious. Accordingly, Applicant respectfully requests that the rejection of claim 11 over Fikes and Wetch under 35 U.S.C. § 103(a) be withdrawn.

#### **New Claims**

New claims 12-14 have been added. Applicant respectfully submits that claims 12-14 are allowable over the prior art made of record.

In view of the above amendments and remarks, Applicant respectfully submits that claims 1-14 are in condition for allowance, and a timely indication of allowance is respectfully requested. If there are any remaining issues that can be addressed by telephone, Applicant invites the Examiner to contact the undersigned at the number indicated.

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Should any additional fees be due, the Commissioner is hereby authorized to deduct said fees from Deposit Account No. 04-1579 (56.0730).

Respectfully submitted,



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